Major Industrial
Acute Bio-monitoring
Permit No.: MT-0030627

MONTANA DEPARTMENT OF ENVIRONMENTAL QUALITY

AUTHORIZATION TO DISCHARGE UNDER THE
MONTANA POLLUTANT DISCHARGE ELIMINATION SYSTEM (MPDES)

In Compliance with Mont. Code Annot. Section 75-5-101 *et seq.* and ARM Title 17, Chapter 30, Subchapters 5, 6, 7, and 13.

Continental Energy Services, Inc.
101 Main St.
Butte, MT 59701

is authorized to discharge from its **Silver Bow Generation Plant,**

to receiving waters named: **Silver Bow Creek, Sheep Gulch and ground water.**

in accordance with discharge point(s), effluent limitations, monitoring requirements and other conditions set forth herein. Authorization for discharge is limited to those outfalls specifically listed in the permit. Specified load allocations support and serve to define total maximum daily loads for the receiving waters affected.

This permit shall become effective _____.

This permit and the authorization to discharge shall expire at midnight 5 years after issuance.

FOR THE MONTANA DEPARTMENT OF
ENVIRONMENTAL QUALITY

_____
Jan P. Sensibaugh
Director
Department of Environmental Quality

Dated this _____ day of _____

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I. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

A. Definitions.

1. The "**30-day (and monthly) average**," other than for fecal coliform bacteria is the arithmetic average of all samples collected during a consecutive 30-day period or calendar month, whichever is applicable. Geometric means shall be calculated for fecal coliform bacteria. The calendar month shall be used for purposes of reporting self-monitoring data on discharge monitoring report forms.

2. The "**7-day (and weekly) average**," other than for fecal coliform bacteria, is the arithmetic mean of all samples collected during a consecutive 7-day period or calendar week, whichever is applicable. Geometric means shall be calculated for fecal coliform bacteria. The 7-day and weekly averages are applicable only to those effluent characteristics for which there are 7-day average effluent limitations. The calendar week which begins on Sunday and ends on Saturday, shall be used for purposes of reporting self-monitoring data on discharge monitoring report forms. Weekly averages shall be calculated for all calendar weeks in the month that has at least four days. For example, if a calendar week overlaps two months, the weekly average is calculated only in the month that contains four or more days of that week.

3. The "**Annual Average Load**" is the arithmetic mean of all 30-day or monthly average loads reported during the calendar year for a monitored parameter.

4. "**Acute Toxicity**" occurs when 50 percent or more mortality is observed for either species (See Part I.C of this permit.) at any effluent concentration. Mortality in the control must simultaneously be 10 percent or less for the effluent results to be considered valid.

5. The "**Arithmetic Mean**" or "**Arithmetic Average**" for any set of related values means the summation of the individual values divided by the number of individual values.

6. "**BOD_5**" is the five-day measure of pollutant parameter biochemical oxygen demand.

7. "**Bypass**" means the intentional diversion of waste streams from any portion of a treatment facility.

8. "**$CBOD_5$**" is the five-day measure of pollutant parameter carbonaceous biochemical oxygen demand.

9. "**Composite samples**" shall be flow proportioned. The composite sample shall, as a minimum, contain at least four (4) samples collected over the compositing period. Unless otherwise specified, the time between the collection of the first sample and the last sample shall not be less than six (6) hours nor more than 24 hours. Acceptable methods for preparation of composite samples are as follows:

a. Constant time interval between samples, sample volume proportional to flow rate at time of sampling;

b. Constant time interval between samples, sample volume proportional to total flow (volume) since last sample. For the first sample the flow rate at the time the sample was collected may be used;

c. Constant sample volume, time interval between samples proportional to flow (i.e., sample taken every "X" gallons of flow); and,

d. Continuous collection of sample, with sample collection rate proportional to flow rate.

10. A "**Daily Maximum Limit**" specifies the maximum allowable discharge of a pollutant during a calendar day. Expressed as units of mass, the daily discharge is cumulative mass discharged over the course of the day. Expressed as a concentration, it is the arithmetic average of all measurements taken that day.

11. "**Department**" means the Montana Department of Environmental Quality (MDEQ).

12. "**Director**" means the Director of the United States Environmental Protection Agency's Water Management Division.

13. "**EPA**" means the United States Environmental Protection Agency.

14. A "**grab**" sample, for monitoring requirements, is defined as a single "dip and take" sample collected at a representative point in the discharge stream.

15. An "**instantaneous**" measurement, for monitoring requirements, is defined as a single reading, observation, or measurement.

16. "**Load limits**" are mass-based discharge limits expressed in units such as lb/day.

17. A "**mixing zone**" is a limited area of a surface water body or aquifer where initial dilution of a discharge takes place and where water quality changes may occur. Also recognized as an area where certain water quality standards may be exceeded.

18. "**Nondegradation**" means the prevention of a significant change in water quality that lowers the quality of high-quality water for one or more parameters. Also, the prohibition of any increase in discharge that exceeds the limits established under or determined from a permit or approval issued by the Department prior to April 29, 1993.

19. The "**Regional Administrator**" is the administrator of the EPA Region with Jurisdiction over federal water pollution control activities in the State of Montana.

20. "**Severe property damage**" means substantial physical damage to property, damage to the treatment facilities which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the

absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.

21. "**Sewage Sludge**" is any solid, semi-solid or liquid residue that contains materials removed from domestic sewage during treatment. Sewage sludge includes, but is not limited to, primary and secondary solids and sewage sludge products.

22. "**TIE**" is a toxicity identification evaluation.

23. "**TRE**" is a toxicity reduction evaluation.

24. The term "**TMDL**" means the total maximum daily load limitation of a parameter, representing the estimated assimilative capacity for a water body before other designated uses are adversely affected. Mathematically, it is the sum of wasteload allocations for point sources, load allocations for non-point and natural background sources, and a margin of safety.

25. "**TSS**" is the parameter total suspended solids.

26. "**Upset**" means an exceptional incident in which there is unintentional and temporary noncompliance with technology-based permit effluent limitations because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.

B. Description of Discharge Points

The authorization to discharge provided under this permit is limited to those outfalls specially designated below as discharge locations. Discharges at any location not authorized under an MPDES permit is a violation of the Montana Water Quality Act and could subject the person(s) responsible for such discharge to penalties under the Act. Knowingly discharging from an unauthorized location or failing to report an unauthorized discharge within a reasonable time from first learning of an unauthorized discharge could subject such person to criminal penalties as provided under Section 75-5-632 of the Montana Water Quality Act.

Outfall Serial Number	Description of Discharge Point
001	At the end of the discharge pipe emptying to Silver Bow Creek, located approximately at 46°00'10" N latitude, 112°40'27" W longitude. The Department has granted a standard mixing zone for this outfall. The maximum discharge volume will be approximately 300 gpm between October 1 and April 30.
002	At the end of the discharge pipe emptying to Sheep Gulch, located approximately at 45°58'12" N latitude, 112°40'56" W longitude. A surface water mixing zone has not been designated for this outfall. A

6,000-foot long source specific ground water mixing zone has been designated for the portion of the discharge that will migrate to the ground water. The maximum discharge volume will be approximately 300 gpm, discharges will occur between October 1 and April 30. Outfall 002 can also be used as an emergency outfall for a maximum of 14 days between May 1 and September 30 in any given year.

003 At one of three pivot irrigation systems, located approximately at 45°58'25" N latitude, 112°40'30" W longitude. A ground water mixing zone has not been designated for this outfall. The maximum discharge volume will be approximately 300 gpm, discharges will occur between May 1 and September 30.

C. Specific Effluent Limitations

1. Wastewater Effluent Requirements

Effective immediately and lasting through the term of the permit, the quality of effluent discharged by the facility shall, as a minimum, meet the limitations as set forth below:

Outfall 001

TABLE 1
NUMERIC EFFLUENT LIMITS

Parameter	Concentration (mg/l)[1]	
	30-Day Average	**Daily Maximum[2]**
Total Suspended Solids (TSS), mg/L	30	100
Oil and Grease, mg/L	10	15
Total Residual Chlorine, mg/L	0.011	0.0165
Free Available Chlorine, mg/L[3]	0.2	0.5
Temperature (April and October), °F	N/A	80
Temperature (November – March), °F	N/A	70
Aluminum, dissolved, mg/L	0.101	0.152
Antimony, total recoverable, mg/L	0.006	0.009
Arsenic, total recoverable, mg/L	0.018	0.027
Beryllium, total recoverable, mg/L	0.004	0.006
Chromium, total recoverable, mg/L	0.1	0.15
Copper, total recoverable, mg/L	0.0285	0.044
Fluoride, total recoverable, mg/L	4.0	6.0
Lead, total recoverable, mg/L	0.006	0.009
Mercury, total recoverable, mg/L	0.00054	0.0008
Nickel, total recoverable, mg/L	0.079	0.1185

Parameter	Concentration (mg/l)[1]	
	30-Day Average	Daily Maximum[2]
Selenium, total recoverable, mg/L	0.005	0.0075
Silver, total recoverable, mg/L	N/A	0.0095
Thallium, total recoverable, mg/L	0.0017	0.0026
Zinc, total recoverable, mg/L	0.231	0.347
Whole Effluent Toxicity (WET), TU_a	N/A	0.3

[1] See the definitions in Part I.A of this permit for explanation of terms.
[2] The daily maximum is based on a factor of 1.5 times the 30-day limit (except for TSS, free available chlorine, and temperature).
[3] Free available chlorine may not be discharged from any unit for more than two hours in any one day and not more than one unit in any plant may discharge free available chlorine at any one time.
N/A - Not applicable.

The pH of the discharge shall remain between 6.5 and 9.0 standard units.

There shall be no discharge of floating solids or visible foam in other than trace amounts.

There shall be no discharge which causes visible oil sheen in the receiving stream.

There shall be no discharge of wastewater which reacts or settles to form an objectionable sludge deposit or emulsion beneath the surface of the receiving stream or upon adjoining shorelines.

There shall be no discharge of polychlorinated biphenyl compounds such as those commonly used for transformer fluid [40 CFR 423.15(b)].

Outfall 002

TABLE 2
NUMERIC EFFLUENT LIMITS

Parameter	Concentration (mg/l)[1]	
	30-Day Average	Daily Maximum
Total Suspended Solids (TSS) mg/L	30	100
Oil and Grease, mg/L	10	15[2]
Free Available Chlorine, mg/L[3]	0.2	0.5
Chromium, total recoverable, mg/L	0.2	0.2
Zinc, total recoverable, mg/L	1.0	1.0
Whole Effluent Toxicity (WET), TU_a	N/A	0.3

[1] See the definitions in Part I.A of this permit for explanation of terms.
[2] The daily maximum is based on a factor of 1.5 times the 30-day limit.
[3] Free available chlorine may not be discharged from any unit for more than two hours in any one day and not more than one unit in any plant may discharge free available chlorine at any one time.
N/A – Not Applicable

The pH of the discharge shall remain between 6.5 and 9.0 standard units.

There shall be no discharge of floating solids or visible foam in other than trace amounts.

There shall be no discharge which causes visible oil sheen in the receiving stream.

There shall be no discharge of wastewater which reacts or settles to form an objectionable sludge deposit or emulsion beneath the surface of the receiving stream or upon adjoining shorelines.

There shall be no discharge of polychlorinated biphenyl compounds such as those commonly used for transformer fluid [40 CFR 423.15(b)].

Outfall 003

TABLE 3
NUMERIC EFFLUENT LIMITS

Parameter	Concentration (mg/l)[1]	
	30-Day Average	**Daily Maximum**
Total Suspended Solids (TSS) mg/L	30	100
Oil and Grease, mg/L	15	20
Free Available Chlorine, mg/L[2]	0.2	0.5
Chromium, total recoverable, mg/L	0.2	0.2
Zinc, total recoverable, mg/L	1.0	1.0

[1] See the definitions in Part I.A of this permit for explanation of terms.
[2] Free available chlorine may not be discharged from any unit for more than two hours in any one day and not more than one unit in any plant may discharge free available chlorine at any one time.

D. Self-Monitoring Requirements

1. Wastewater Monitoring

As a minimum, upon the effective date of this permit, the following constituents shall be monitored at the frequency and with the type of measurement indicated; samples or measurements shall be representative of the volume and nature of the monitored discharge. If no discharge occurs during the entire monitoring period, it shall be stated on the Discharge Monitoring Report Form (EPA No. 3320-1) that no discharge or overflow occurred.

Outfalls 001 and 002

TABLE 4
EFFLUENT MONITORING REQUIREMENTS

Parameter[1]	**Frequency**[6]	**Type**[2]
Effluent Flow Rate[3], mgd	Continuous	Recorder
DO, mg/L	Monthly	Grab
BOD_5, mg/L	Monthly	Grab
COD, mg/L	Monthly	Grab
Total Suspended Solids (TSS), mg/L	Monthly	Grab
Total Dissolved Solids (TDS), mg/L	Monthly	Grab
Sulfate, mg/L	Monthly	Grab
Ammonia (as N), mg/L	Monthly	Grab
Nitrate + Nitrite (as N), mg/L	Monthly	Grab
Total inorganic nitrogen (as N)[4], mg/L	Monthly	Calculated
Orthophosphorus, mg/L	Monthly	Grab
Temperature, degrees F	Daily	Grab
pH, standard units	Daily	Grab
Oil and Grease[5], mg/L	Daily	Visual
Total Residual Chlorine, mg/L	Daily	Grab
Free Available Chlorine, mg/L	Daily	Grab
Whole Effluent Toxicity (WET), TU_a	Quarterly	Composite/Grab
Aluminum, dissolved, mg/L	Weekly	Composite
Antimony, total recoverable/dissolved[8], mg/L	Weekly	Composite
Arsenic, total recoverable/dissolved[8], mg/L	Weekly	Composite
Barium, total recoverable/dissolved[8], mg/L	Weekly	Composite
Beryllium, total recoverable/dissolved[8], mg/L	Weekly	Composite
Cadmium, total recoverable/dissolved[8], mg/L	Weekly	Composite
Chromium, total recoverable/dissolved[8], mg/L	Weekly	Composite
Copper, total recoverable/dissolved[8], mg/L	Weekly	Composite
Fluoride, total recoverable/dissolved[8] mg/L	Weekly	Composite
Iron, total recoverable/dissolved[8], mg/L	Weekly	Composite
Lead, total recoverable/dissolved[8], mg/L	Weekly	Composite
Manganese, total recoverable/dissolved[8], mg/L	Weekly	Composite
Mercury, total recoverable/dissolved[8], mg/L	Weekly	Composite
Nickel, total recoverable/dissolved[8], mg/L	Weekly	Composite
Selenium, total recoverable/dissolved[8], mg/L	Weekly	Composite
Strontium, total recoverable/dissolved[8], mg/L	Weekly	Composite
Silver, total recoverable/dissolved[8], mg/L	Weekly	Composite
Thallium, total recoverable/dissolved[8], mg/L	Weekly	Composite
Zinc, total recoverable/dissolved[8], mg/L	Weekly	Composite

[1] Detection limits must follow the required reporting values (RRVs) in WQB-7. Total recoverable and dissolved metals analysis shall be by the EPA series 200 method described in "Metals (Atomic Absorption

Methods)", Section 4.1.4 from Methods for Analysis of Water and Wastes, EPA-600/4-79-020, revised March 1983.
(2) See the definitions in Part I.A of this permit for explanation of terms.
(3) If no discharge occurs during the reporting period, "no discharge" shall be recorded on the DMR report form.
(4) Calculated by finding the sum of nitrate+nitrite and ammonia (as N) concentrations.
(5) If a visual examination of the discharge indicates the presence of hydrocarbons, by sheen, odor, or other sign, the permittee will be required to sample for Oil and Grease for that month.
(6) If a discharge occurs at any time during the reporting period monitoring must be conducted.
(8) For discharges from outfall 001 only the total recoverable analysis is required. For discharges from outfall 002 both total recoverable and dissolved analyses are required.

Outfall 003

TABLE 5
EFFLUENT MONITORING REQUIREMENTS

Parameter(1)	Frequency(6)	Type(2)
Effluent Flow Rate(3), mgd	Continuous	Recorder/Flow meter
Total Dissolved Solids (TDS), mg/L	Monthly	Grab
Ammonia (as N), mg/L	Monthly	Grab
Nitrate + Nitrite (as N), mg/L	Monthly	Grab
Total inorganic nitrogen (as N)(4), mg/L	Monthly	Calculated
Orthophosphorus, mg/L	Monthly	Grab
pH, standard units	Daily	Grab
Oil and Grease(5), mg/L	Daily	Visual
Total Residual Chlorine, mg/L	Daily	Grab
Free Available Chlorine, mg/L	Daily	Grab
Sodium, mg/L	Quarterly	Grab
Calcium, mg/L	Quarterly	Grab
Magnesium, mg/L	Quarterly	Grab
Potassium, mg/L	Quarterly	Grab
total Phosphorus, mg/L	Quarterly	Grab
Sulfate, mg/L	Quarterly	Grab
Chloride, mg/L	Quarterly	Grab
Bicarbonate, mg/L	Quarterly	Grab
Aluminum, dissolved, mg/L	Quarterly	Grab
Antimony, dissolved, mg/L	Quarterly	Grab
Arsenic, dissolved, mg/L	Quarterly	Grab
Barium, dissolved, mg/L	Quarterly	Grab
Beryllium, dissolved, mg/L	Quarterly	Grab
Cadmium, dissolved, mg/L	Quarterly	Grab
Chromium, dissolved, mg/L	Quarterly	Grab
Copper, dissolved, mg/L	Quarterly	Grab
Fluoride, dissolved, mg/L	Quarterly	Grab
Iron, dissolved, mg/L	Quarterly	Grab

Parameter[1]	Frequency[6]	Type[2]
Lead, dissolved, mg/L	Quarterly	Grab
Manganese, dissolved, mg/L	Quarterly	Grab
Mercury, dissolved, mg/L	Quarterly	Grab
Nickel, dissolved, mg/L	Quarterly	Grab
Selenium, dissolved, mg/L	Quarterly	Grab
Strontium, dissolved, mg/L	Quarterly	Grab
Silver, dissolved, mg/L	Quarterly	Grab
Thallium, dissolved, mg/L	Quarterly	Grab
Zinc, dissolved, mg/L	Quarterly	Grab

[1] Detection limits must follow the required reporting values (RRVs) in WQB-7. Dissolved metals analysis shall be by the EPA series 200 method described in "Metals (Atomic Absorption Methods)", Section 4.1.4 from Methods for Analysis of Water and Wastes, EPA-600/4-79-020, revised March 1983.
[2] See the definitions in Part I.A of this permit for explanation of terms.
[3] If no discharge occurs during the reporting period, "no discharge" shall be recorded on the DMR report form.
[4] Calculated by finding the sum of nitrate+nitrite and ammonia (as N) concentrations.
[5] If a visual examination of the discharge indicates the presence of hydrocarbons, by sheen, odor, or other sign, the permittee will be required to sample for Oil and Grease for that month.
[6] If a discharge occurs at any time during the reporting period monitoring must be conducted.

Other Limitations and Conditions – Outfalls 001, 002 and 003

The permittee shall submit to the Department for review and approval, 6 months prior to construction, complete plans, specifications and schedule, for the waste water/storm water detention pond, all wastewater conveyance structures, and the land application and disposal area.

2. In-Stream Monitoring

As a minimum, and according to the schedules described below, the following constituents shall be monitored at the frequency and with the type of measurement indicated; samples or measurements shall be representative of the volume and nature of the monitored surface water.

CRK-A (Silver Bow Creek)

TABLE 6
IN-STREAM MONITORING REQUIREMENTS

Parameter[1]	Frequency	Type[2]
Temperature, ^{o}F	Monthly	Instantaneous
DO, mg/L	Quarterly	Grab
Total Suspended Solids (TSS), mg/L	Quarterly	Grab
Total Dissolved Solids (TDS), mg/L	Quarterly	Grab
Sulfate, mg/L	Quarterly	Grab

Parameter[1]	Frequency	Type[2]
Ammonia (as N), mg/L	Quarterly	Grab
Nitrate + Nitrite (as N), mg/L	Quarterly	Grab
Total inorganic nitrogen (as N)[3], mg/L	Quarterly	Calculated
Orthophosphorus, mg/L	Quarterly	Grab
Total residual chlorine, mg/L	Quarterly	Grab
Whole Effluent Toxicity (WET), TU_a	Quarterly	Grab
Aluminum, dissolved, mg/L	Semi-annual	Grab
Antimony, total recoverable, mg/L	Semi-annual	Grab
Arsenic, total recoverable, mg/L	Semi-annual	Grab
Barium, total recoverable, mg/L	Semi-annual	Grab
Beryllium, total recoverable, mg/L	Semi-annual	Grab
Cadmium, total recoverable, mg/L	Semi-annual	Grab
Chromium, total recoverable, mg/L	Semi-annual	Grab
Copper, total recoverable, mg/L	Semi-annual	Grab
Fluoride, total recoverable, mg/L	Semi-annual	Grab
Iron, total recoverable, mg/L	Semi-annual	Grab
Lead, total recoverable, mg/L	Semi-annual	Grab
Manganese, total recoverable, mg/L	Semi-annual	Grab
Mercury, total recoverable, mg/L	Semi-annual	Grab
Nickel, total recoverable, mg/L	Semi-annual	Grab
Selenium, total recoverable, mg/L	Semi-annual	Grab
Strontium, total recoverable, mg/L	Semi-annual	Grab
Silver, total recoverable, mg/L	Semi-annual	Grab
Thallium, total recoverable, mg/L	Semi-annual	Grab
Zinc, total recoverable, mg/L	Semi-annual	Grab

[1] Detection limits must follow the required reporting values (RRVs) in WQB-7. Total recoverable metals analysis shall be by the EPA series 200 method described in "Metals (Atomic Absorption Methods)", Section 4.1.4 from Methods for Analysis of Water and Wastes, EPA-600/4-79-020, revised March 1983.
[2] See the definitions in Part I.A of this permit for explanation of terms.
[3] Calculated by finding the sum of nitrate+nitrite and ammonia (as N) concentrations.

Monitoring at CRK-A is required upon issuance of the permit, or for at least 1 year before outfall 001 is used if the permittee does not expect to use this outfall for more than 1 year after issuance of the permit.

The location of CRK-A shall be in Silver Bow Creek upstream of the proposed outfall 001 location outside the influence of the discharge water, but within 500 feet of the discharge location. The applicant shall submit a map showing the location of CRK-A to the Department within 6 months after issuance of this permit. To provide consistency between sampling events, sample collection should occur at the same location and approximately same time of day. If dangerous sampling conditions exist due to ice conditions in the river, the permittee may request an exemption from sampling for that month.

CRK-B (Sheep Gulch)

TABLE 7
IN-STREAM MONITORING REQUIREMENTS

Parameter[1]	Frequency[2]	Type[3]
Flow Rate, mgd[4]	Daily	Instantaneous
Temperature, °F	Monthly	Instantaneous
DO, mg/L	Monthly	Grab
Total Suspended Solids (TSS), mg/L	Monthly	Grab
Total Dissolved Solids (TDS), mg/L	Monthly	Grab
Sulfate, mg/L	Monthly	Grab
Ammonia (as N), mg/L	Monthly	Grab
Nitrate + Nitrite (as N), mg/L	Monthly	Grab
Total inorganic nitrogen (as N)[5], mg/L	Monthly	Calculated
Orthophosphorus, mg/L	Monthly	Grab
Aluminum, dissolved, mg/L	Monthly	Grab
Antimony, total recoverable, mg/L	Monthly	Grab
Arsenic, total recoverable, mg/L	Monthly	Grab
Barium, total recoverable, mg/L	Monthly	Grab
Beryllium, total recoverable, mg/L	Monthly	Grab
Cadmium, total recoverable, mg/L	Monthly	Grab
Chromium, total recoverable, mg/L	Monthly	Grab
Copper, total recoverable, mg/L	Monthly	Grab
Fluoride, total recoverable, mg/L	Monthly	Grab
Iron, total recoverable, mg/L	Monthly	Grab
Lead, total recoverable, mg/L	Monthly	Grab
Manganese, total recoverable, mg/L	Monthly	Grab
Mercury, total recoverable, mg/L	Monthly	Grab
Nickel, total recoverable, mg/L	Monthly	Grab
Selenium, total recoverable, mg/L	Monthly	Grab
Strontium, total recoverable, mg/L	Monthly	Grab
Silver, total recoverable, mg/L	Monthly	Grab
Thallium, total recoverable, mg/L	Monthly	Grab
Zinc, total recoverable, mg/L	Monthly	Grab

[1] Detection limits must follow the required reporting values (RRVs) in WQB-7. Total recoverable metals analysis shall be by the EPA series 200 method described in "Metals (Atomic Absorption Methods)", Section 4.1.4 from Methods for Analysis of Water and Wastes, EPA-600/4-79-020, revised March 1983.
[2] Sample collection shall be conducted on the same date when effluent samples are collected at outfall 002.
[3] See the definitions in Part I.A of this permit for explanation of terms.
[4] Measurements shall be collected daily and reported as a weekly average. The method used to measure flow shall be accurate within 10% of the actual flow.
[5] Calculated by finding the sum of nitrate+nitrite and ammonia (as N) concentrations.

Monitoring at CRK-B is required upon initiation of the discharge from outfall 002. The location of CRK-B shall be in Sheep Gulch upstream of the confluence of Sheep Gulch and West Fork Sheep Gulch and outside the influence of the ASiMI discharge water in West Fork Sheep Gulch. The applicant shall submit a map showing the location of CRK-B to the Department within 6 months after issuance of this permit. To provide consistency between sampling events, sample collection should occur at the same location and approximately same time of day. In addition, to provide a useful comparison between effluent quality at outfall 002 and the quality of the effluent after it has traveled for approximately one mile in Sheep Gulch, the sample collection at CRK-B should occur on the same date that monitoring is conducted at outfall 002 (see Table 4).

3. Ground Water Monitoring

As a minimum, and according to the schedule described below, the following constituents shall be monitored at the frequency and with the type of measurement indicated; samples or measurements shall be representative of the volume and nature of the monitored ground water.

CESMW-1, CESMW-2 and CESMW-3 (monitoring for outfall 002)

TABLE 8
GROUND WATER MONITORING REQUIREMENTS

Parameter[1]	**Frequency**	**Type**[2]
Ground water elevation, ft above mean sea level	Monthly	Instantaneous
Total Dissolved Solids (TDS), mg/L	Monthly	Grab
Specific Conductance, umhos/cm	Monthly	Grab
Sulfate, mg/L	Monthly	Grab
Ammonia (as N), mg/L	Monthly	Grab
Nitrate + Nitrite (as N), mg/L	Monthly	Grab
Total inorganic nitrogen (as N)[3], mg/L	Monthly	Calculated
Aluminum, dissolved, mg/L	Monthly	Grab
Antimony, dissolved, mg/L	Monthly	Grab
Arsenic, dissolved, mg/L	Monthly	Grab
Barium, dissolved, mg/L	Monthly	Grab
Beryllium, dissolved, mg/L	Monthly	Grab
Cadmium, dissolved, mg/L	Monthly	Grab
Chromium, dissolved, mg/L	Monthly	Grab
Copper, dissolved, mg/L	Monthly	Grab
Fluoride, dissolved, mg/L	Monthly	Grab
Iron, dissolved, mg/L	Monthly	Grab
Lead, dissolved, mg/L	Monthly	Grab
Manganese, dissolved, mg/L	Monthly	Grab
Mercury, dissolved, mg/L	Monthly	Grab

Parameter[1]	Frequency	Type[2]
Nickel, dissolved, mg/L	Monthly	Grab
Selenium, dissolved, mg/L	Monthly	Grab
Silver, dissolved, mg/L	Monthly	Grab
Strontium, mg/L	Monthly	Grab
Thallium, dissolved, mg/L	Monthly	Grab
Zinc, dissolved, mg/L	Monthly	Grab

[1] Detection limits must follow the required reporting values (RRVs) in WQB-7. Dissolved metals analysis shall be by the EPA series 200 method described in "Metals (Atomic Absorption Methods)", Section 4.1.4 from Methods for Analysis of Water and Wastes, EPA-600/4-79-020, revised March 1983.
[2] See the definitions in Part I.A of the permit for explanation of terms.
[3] Calculated by finding the sum of nitrate+nitrite and ammonia (as N) concentrations.

The upgradient (background) ground water monitoring well (CESMW-1) shall be located upgradient of outfall 002 and will be used as the ambient ground water conditions. CESMW-1 shall be located near Sheep Gulch approximately 500 feet upgradient of outfall 002 and should be outside the zone of influence of the effluent impacted ground water.

Downgradient well CESMW-2 shall be located near Sheep Gulch approximately 500 feet upgradient of the West Fork Sheep Gulch confluence. CESMW-2 will be used to determine ground water impacts due to the discharge at outfall 002 prior to mixing with the ground water beneath West Fork Sheep Gulch that has been impacted by the ASiMI discharge.

Downgradient well CESMW-3 shall be located near Sheep Gulch at the farthest available downstream location before Sheep Gulch is diverted around the Rhodia Inc.tailing ponds. This location will mark the end of the mixing zone, approximately 6,000 feet downgradient from the outfall location.

CESMW-1, CESMW-2 and CESMW-3 shall be placed adjacent to Sheep Gulch above the normal high water mark. The applicant shall submit a map showing the proposed location of the monitoring wells to the Department within 6 months after issuance of this permit.

Ground water monitoring is required for at least 12 months prior to initiation of discharge from outfall 002. That water quality information will be used to determine the pre-discharge water quality and to determine any existing differences in water quality between CESMW-1 and CESMW-2/CESMW-3. Ground water monitoring will continue at the specified schedule regardless of whether effluent has been discharged via outfall 002 since the previous sampling event.

Both wells shall be constructed in accordance with ARM 17.50.707. Both wells shall be screened approximately from the top of the high water table to 15 feet below the low water table. Completed well logs shall be submitted to the Department within 2 months after each well is completed.

CESMW-4 and CESMW-5 (monitoring for outfall 003)

TABLE 9
GROUND WATER MONITORING REQUIREMENTS

Parameter[1]	Frequency	Type[2]
Ground water elevation, ft above mean sea level	Monthly	Instantaneous
Total Dissolved Solids (TDS), mg/L	Semi-Annual	Grab
Specific Conductance, umhos/cm	Semi-Annual	Grab
Sulfate, mg/L	Semi-Annual	Grab
Ammonia (as N), mg/L	Semi-Annual	Grab
Nitrate + Nitrite (as N), mg/L	Semi-Annual	Grab
Total inorganic nitrogen (as N)[3], mg/L	Semi-Annual	Calculated
Aluminum, dissolved, mg/L	Semi-Annual	Grab
Antimony, dissolved, mg/L	Semi-Annual	Grab
Arsenic, dissolved, mg/L	Semi-Annual	Grab
Barium, dissolved, mg/L	Semi-Annual	Grab
Beryllium, dissolved, mg/L	Semi-Annual	Grab
Cadmium, dissolved, mg/L	Semi-Annual	Grab
Chromium, dissolved, mg/L	Semi-Annual	Grab
Copper, dissolved, mg/L	Semi-Annual	Grab
Fluoride, dissolved, mg/L	Semi-Annual	Grab
Iron, dissolved, mg/L	Semi-Annual	Grab
Lead, dissolved, mg/L	Semi-Annual	Grab
Manganese, dissolved, mg/L	Semi-Annual	Grab
Mercury, dissolved, mg/L	Semi-Annual	Grab
Nickel, dissolved, mg/L	Semi-Annual	Grab
Selenium, dissolved, mg/L	Semi-Annual	Grab
Silver, dissolved, mg/L	Semi-Annual	Grab
Strontium, mg/L	Semi-Annual	Grab
Thallium, dissolved, mg/L	Semi-Annual	Grab
Zinc, dissolved, mg/L	Semi-Annual	Grab

[1] Detection limits must follow the required reporting values (RRVs) in WQB-7. Dissolved metals analysis shall be by the EPA series 200 method described in "Metals (Atomic Absorption Methods)", Section 4.1.4 from Methods for Analysis of Water and Wastes, EPA-600/4-79-020, revised March 1983.
[2] See the definitions in Part I.A of the permit for explanation of terms.
[3] Calculated by finding the sum of nitrate+nitrite and ammonia (as N) concentrations.

The upgradient (background) ground water monitoring well (CESMW-4) shall be located upgradient of outfall 003, and will be used to determine the ambient ground water conditions. CESMW-4 shall be located approximately 500 feet upgradient of the most upgradient land application area.

The downgradient well (CESMW-5) shall be located approximately 100 feet downgradient of the land application areas.

The applicant shall submit a map showing the proposed location of the monitoring wells to the Department within 6 months after issuance of this permit.

Ground water monitoring is required for at least 6 months (minimum of two sampling events) prior to initiation of discharge from outfall 003. That information will be used to determine the pre-discharge water quality and to determine any existing differences in water quality between CESMW-4 and CESMW-5. Ground water monitoring will continue at the specified schedule regardless of whether effluent has been discharged via outfall 003 since the previous sampling event.

The wells shall be constructed in accordance with ARM 17.50.707. Both wells shall be screened approximately from the top of the high water table to 15 feet below the low water table. Completed well logs shall be submitted to the Department within 2 months after each well is completed.

Other Limitations and Conditions – Monitoring Wells CESMW-1 through CESMW-5

Within 6 months of the issuance of this permit the applicant shall submit a copy of the standard operating procedures proposed for monitoring the wells. These procedures should address at a minimum, well purging equipment and procedures, sample collection equipment and procedures, equipment decontamination procedures, and sample storage and transportation procedures.

The permittee shall submit to the Department for review and approval, 6 months prior to construction, complete plans, specifications and schedule, for the monitoring wells.

4. Soil Monitoring

As a minimum, and according to the schedule described below, the following constituents shall be monitored at the frequency and with the type of measurement indicated; samples or measurements shall be representative of the nature of the monitored soils.

SOIL – A (for outfall 003)

TABLE 10
SOIL MOISTURE MONITORING REQUIREMENTS

Parameter	Frequency	Type[1]
Soil Moisture Probe	Daily	Instantaneous

[1] See the definitions in Part I.A of this permit for explanation of terms.

Soil moisture monitoring is required for at least one month prior to initiation of discharge from outfall 003.

Two soil moisture probes located on opposite sides of each of the three irrigation areas will be required. The probes should be below the root depth (approximately 5 feet below ground surface). The probes will be used to detect moisture that has infiltrated past the

root zone. If free water is detected in a moisture probe beneath an area that is actively being irrigated, irrigation in that area should be suspended within 24 hours and the discharge directed towards one of the other irrigation areas.

SOIL – B (for outfall 003)

TABLE 11
SOIL MONITORING REQUIREMENTS

Parameter	Frequency	Type[1]
Plant available nitrate (as N)	Semi-Annual (April & October)	Composite[3]
Plant available ammonia (as N)	Semi-Annual (April & October)	Composite[3]
Plant available phosphorus	Semi-Annual (April & October)	Composite[3]
Plant available potassium	Semi-Annual (April & October)	Composite[3]
Plant available sulfur	Semi-Annual (April & October)	Composite[3]
pH, std. Units	Monthly[2]	Composite[3]
Cation Exchange Capacity (CEC), meq/100g	Monthly[2]	Composite[3]
Electrical conductivity of the saturation extract	Monthly[2]	Composite[3]
Total irrigated area, ft^2	Monthly[2]	Visual

[1] See the definitions in Part I.A of this permit for explanation of terms.
[2] Monitoring requirements will apply to each land application area that is used during the monthly reporting period during the months of May, June, July, August and September. Two soil borings (10 soil analyses) shall be collected from each land application used during the reporting period. Soil boring locations shall be rotated to avoid collecting samples from the same location over time.
[3] Each soil analyses will consist of 5 separate composite soil samples and analyses collected from a single boring at one-foot intervals in the upper 5 feet of the soil column.

Soil monitoring is required upon initiation of discharge via outfall 003.

Soil pH monitoring is required to insure that the pH remains above 6.5, which is the EPA (1981, 1992) recommended soil pH necessary to maintain the soils adsorptive and absorbtive capacity for metals.

Other Limitations and Conditions – Soil Monitoring

The permittee must submit the following information to the Department, and the Department must determine it as adequate prior to discharging effluent to Outfall 003: 1) a level II soil survey that is adequate to define the soil and hydraulic properties of the irrigation area(s). That survey must be acceptable to the Department (the survey outlined in a letter from Cascade Earth Sciences dated October 5, 2001, would meet these requirements); 2) information demonstrating that the irrigation system will be meet the EPA hydraulic and nutrient loading requirements for land application areas (EPA, 1981); and 3) demonstrate the irrigation facilities will be in compliance with applicable sections of Appendix B of the Circular DEQ-2 (Standards for the Spray Irrigation of Wastewater).

Within 6 months of the issuance of this permit the applicant shall submit a copy of the standard operating procedures proposed for soil monitoring. These procedures should

address at a minimum, sample collection equipment and procedures, equipment decontamination procedures, and sample storage and transportation procedures.

The permittee shall submit to the Department for review and approval, 6 months prior to construction, complete plans, specifications and schedule, for the soil moisture probes.

5. Whole Effluent Toxicity Testing – Acute Toxicity

Starting in the first calendar quarter following the effective date of the permit, the permittee shall, at least once each calendar quarter conduct an acute static replacement toxicity test on an undiluted composite/grab sample of the effluent. Testing will employ two species per quarter. Samples shall be collected on a two day progression; i.e., if the first yearly sample is on a Monday, the second yearly sample shall be on a Wednesday, etc. Saturdays, Sundays and Holidays will be skipped in the progression.

The replacement static toxicity tests shall be conducted in general accordance with the procedures set out in the latest revision of Methods for Measuring the Acute Toxicity of Effluents to Freshwater and Marine Organisms, EPA-600/4-90-027 and the "Region VIII EPA NPDES Acute Test Conditions – Static Renewal Whole Effluent Toxicity". The permittee shall conduct an acute 48-hjour static renewal toxicity test using both *Ceriodaphnia sp*. and fathead minnows (*Pimephales promelas*).

Acute toxicity occurs when 50 percent or more mortality is observed for either species at any effluent concentration. If more than 10 percent control mortality occurs, the test is considered invalid and shall be repeated until satisfactory control survival is achieved unless a specific individual exception is granted by the Department. This exception may be granted if less than 10 percent mortality was observed at the dilutions containing high effluent concentrations.

If acute toxicity occurs in a routine test, an additional test shall be conducted within 30 days of the date of the initial sample. Should acute toxicity occur in the second test, testing shall occur once a month until further notified by the Department.

The quarterly test results from the laboratory shall be reported along with the Discharge Monitoring Report (DMR) form submitted for the end of the reporting calendar quarter (e.g., whole effluent results for the reporting quarter ending March 31 shall be reported with the March DMR due April 28, with the remaining quarterly reports submitted with the June, September, and December DMRs). The format for the laboratory report shall be consistent with the latest revision of Region VIII Guidance for Acute Whole Effluent Reporting, and shall include all chemical and physical data as specified.

6. Toxicity Reduction Evaluation (TRE)
Toxicity Identification Evaluation (TIE)

Should acute toxicity be detected in the permittee's discharge, a TIE-TRE shall be undertaken by the permittee to establish the cause of the toxicity, locate the source(s)

of the toxicity, and develop control of, or treatment for the toxicity. Failure to initiate, or conduct an adequate TIE-TRE, or delays in the conduct of such tests, shall not be considered a justification for noncompliance with the whole effluent toxicity limits contained in Part I.C.1 of this permit.

II. MONITORING RECORDING AND REPORTING REQUIREMENTS

A. Representative Sampling. Samples taken in compliance with the effluent monitoring requirements established under Part I of the permit shall be collected from the effluent stream prior to discharge into the receiving waters. Samples and measurements shall be representative of the volume and nature of the monitored discharge.

B. Monitoring Procedures. Monitoring must be conducted according to test procedures approved under Part 136, Title 40 of the Code of Federal Regulations, unless other test procedures have been specified in this permit. All flow-measuring and flow-recording devices used in obtaining data submitted in self-monitoring reports must indicate values within 10 percent of the actual flow being measured.

C. Penalties for Tampering. The Montana Water Quality Act provides that any person who falsifies, tampers with, or knowingly renders inaccurate, any monitoring device or method required to be maintained under this permit shall, upon conviction, be punished by a fine of not more than $25,000, or by imprisonment for not more than six months, or by both.

D. Reporting of Monitoring Results. Self-Monitoring results will be reported monthly. Monitoring results obtained during the previous reporting period shall be summarized and reported on a Discharge Monitoring Report Form (EPA No. 3320-1), postmarked no later than the 28th day of the month following the completed reporting period. Whole effluent toxicity (biomonitoring) results must be reported with copies of the laboratory analysis report on forms from the most recent version of EPA Region VIII's "Guidance for Whole Effluent Reporting". If no discharge occurs during the reporting period, "no discharge" shall be reported. Legible copies of these, and all other reports required herein, shall be signed and certified in accordance with the "Signatory Requirements" (see Part IV.G of this permit), and submitted to the Department and the Regional Administrator at the following address:

a) Montana Department of Environmental Quality
Water Protection Bureau
P.O. Box 200901
Helena, Montana 59620-0901
Phone: (406) 444-3080

b) U.S. Environmental Protection Agency
301 South Park Avenue
Drawer 10096
Helena, Montana 59626
Phone: (406) 441-1123

E. Compliance Schedules. Reports of compliance or noncompliance with, or any progress reports on interim and final requirements contained in any Compliance Schedule of this permit shall be submitted no later than 14 days following each schedule date.

F. Additional Monitoring by the Permittee. If the permittee monitors any pollutant more frequently than required by this permit, using approved analytical methods as specified in this permit, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the Discharge Monitoring Report. Such increased frequency shall also be indicated.

G. Records Contents. Records of monitoring information shall include:

1. The date, exact place, and time of sampling or measurements;

2. The initials or name(s) of the individual(s) who performed the sampling or measurements;

3. The date(s) analyses were performed;

4. The time analyses were initiated;

5. The initials or name(s) of individual(s) who performed the analyses;

6. References and written procedures, when available, for the analytical techniques or methods used; and

7. The results of such analyses, including the bench sheets, instrument readouts, computer disks or tapes, etc., used to determine these results.

H. Retention of Records. The permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this permit, and records of all data used to complete the application for this permit, for a period of at least three years from the date of the sample, measurement, report or application. This period may be extended by request of the Department at any time. Data collected on site, copies of Discharge Monitoring Reports, and a copy of this MPDES permit must be maintained on site during the duration of activity at the permitted location.

I. Twenty-four Hour Notice of Noncompliance Reporting.

1. The permittee shall report any serious incidents of noncompliance as soon as possible, but no later than twenty-four (24) hours from the time the permittee first became aware of the circumstances. The report shall be made to the Water Protection Bureau at (406) 444-3080 or the Office of Disaster and Emergency Services at (406) 841-3911. The following examples are considered serious incidents:

   a. Any noncompliance which may seriously endanger health or the environment;

   b. Any unanticipated bypass which exceeds any effluent limitation in the permit (See Part III.G of this permit, "Bypass of Treatment Facilities".); or

   c. Any upset which exceeds any effluent limitation in the permit (See Part III.H of this permit, "Upset Conditions".).

2. A written submission shall also be provided within five days of the time that the permittee becomes aware of the circumstances. The written submission shall contain:

   a. A description of the noncompliance and its cause;

b. The period of noncompliance, including exact dates and times;

c. The estimated time noncompliance is expected to continue if it has not been corrected; and

d. Steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.

3. The Department may waive the written report on a case-by-case basis if the oral report has been received within 24 hours by the Water Protection Bureau, by phone, (406) 444-3080.

4. Reports shall be submitted to the addresses in Part II.D of this permit, "Reporting of Monitoring Results".

J. Other Noncompliance Reporting. Instances of noncompliance not required to be reported within 24 hours shall be reported at the time that monitoring reports for Part II.D of this permit are submitted. The reports shall contain the information listed in Part II.I.2 of this permit.

K. Inspection and Entry. The permittee shall allow the head of the Department or the Director, or an authorized representative thereof, upon the presentation of credentials and other documents as may be required by law, to:

1. Enter upon the permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this permit;

2. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;

3. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; and

4. Sample or monitor at reasonable times, for the purpose of assuring permit compliance, any substances or parameters at any location.

III. COMPLIANCE RESPONSIBILITIES

A. Duty to Comply. The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the Montana Water Quality Act and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application. The permittee shall give the Department or the Regional Administrator advance notice of any planned changes at the permitted facility or of an activity which may result in permit noncompliance.

B. Penalties for Violations of Permit Conditions. The Montana Water Quality Act provides that any person who violates a permit condition of the Act is subject to civil or criminal penalties not to exceed $10,000 per day of such violation. Any person who willfully or negligently violates permit conditions of the Act is subject to a fine of not more than $50,000 per day of violation, or by imprisonment for not more than 2 years, or both, for subsequent convictions. MCA 75-5-611(a) also provides for administrative penalties not to exceed $10,000 for each day of violation and up to a maximum not to exceed $100,000 for any related series of violations. Except as provided in permit conditions on Part III.G of this permit, "Bypass of Treatment Facilities" and Part III.H of this permit, "Upset Conditions", nothing in this permit shall be construed to relieve the permittee of the civil or criminal penalties for noncompliance.

C. Need to Halt or Reduce Activity not a Defense. It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

D. Duty to Mitigate. The permittee shall take all reasonable steps to minimize or prevent any discharge in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment.

E. Proper Operation and Maintenance. The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of this permit. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems which are installed by a permittee only when the operation is necessary to achieve compliance with the conditions of the permit. However, the permittee shall operate, as a minimum, one complete set of each main line unit treatment process whether or not this process is needed to achieve permit effluent compliance.

F. Removed Substances. Collected screenings, grit, solids, sludges, or other pollutants removed in the course of treatment shall be disposed of in such a manner so as to prevent any pollutant from entering any waters of the state or creating a health hazard. Any sludges removed from the facility shall be disposed of in accordance with 40 CFR 503, 258 or other applicable rule. EPA and MDEQ shall be notified at least 180 days prior to such disposal taking place.

G. Bypass of Treatment Facilities:

1. Bypass not exceeding limitations. The permittee may allow any bypass to occur which does not cause effluent limitations to be exceeded, but only if it also is for

essential maintenance to assure efficient operation. These bypasses are not subject to the provisions of Parts III.G.2 and III.G.3 of this permit.

2. Notice:

a. Anticipated bypass. If the permittee knows in advance of the need for a bypass, it shall submit prior notice, if possible at least ten (10) days before the date of the bypass.

b. Unanticipated bypass. The permittee shall submit notice of an unanticipated bypass as required under Part II.I of this permit, "Twenty-four Hour Reporting".

3. Prohibition of bypass.

a. Bypass is prohibited and the Department may take enforcement action against a permittee for a bypass, unless:

(1) The bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;

(2) There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgement to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance; and

(3) The permittee submitted notices as required under Part III.G.2 of this permit.

b. The Department may approve an anticipated bypass, after considering its adverse effects, if the Department determines that it will meet the three conditions listed above in Part III.G.3.a of this permit.

H. Upset Conditions.

1. Effect of an upset. An upset constitutes an affirmative defense to an action brought for noncompliance with technology based permit effluent limitations if the requirements of Part III.H.2 of this permit are met. No determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review (i.e., Permittees will have the opportunity for a judicial determination on any claim of upset only in an enforcement action brought for noncompliance with technology-based permit effluent limitations).

2. Conditions necessary for a demonstration of upset. A permittee who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:

   a. An upset occurred and that the permittee can identify the cause(s) of the upset;

   b. The permitted facility was at the time being properly operated;

   c. The permittee submitted notice of the upset as required under Part II.I of this permit, "Twenty-four Hour Notice of Noncompliance Reporting"; and

   d. The permittee complied with any remedial measures required under Part III.D of this permit, "Duty to Mitigate".

3. Burden of proof. In any enforcement proceeding, the permittee seeking to establish the occurrence of an upset has the burden of proof.

I. Toxic Pollutants. The permittee shall comply with effluent standards or prohibitions established under Section 307(a) of the Clean Water Act for toxic pollutants within the time provided in the regulations that establish those standards or prohibitions, even if the permit has not yet been modified to incorporate the requirement.

J. Changes in Discharge of Toxic Substances. Notification shall be provided to the Department as soon as the permittee knows of, or has reason to believe:

1. That any activity has occurred or will occur which would result in the discharge, on a routine or frequent basis, of any toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels":

   a. One hundred micrograms per liter (100 μg/l);

   b. Two hundred micrograms per liter (200 μg/l) for acrolein and acrylonitrile; five hundred micrograms per liter (500 μg/l) for 2,4-dinitrophenol and for 2-methyl-4, 6-dinitrophenol; and one milligram per liter (1 μg/l) for antimony;

   c. Five (5) times the maximum concentration value reported for that pollutant in the permit application in accordance with 40 CFR 122.21(g)(7); or

   d. The level established by the Department in accordance with 40 CFR 122.44(f).

2. That any activity has occurred or will occur which would result in any discharge, on a non-routine or infrequent basis, of a toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels":

   a. Five hundred micrograms per liter (500 μg/l);

   b. One milligram per liter (1 mg/l) for antimony;

c. Ten (10) times the maximum concentration value reported for that pollutant in the permit application in accordance with 40 CFR 122.21(g)(7); or

d. The level established by the Department in accordance with 40 CFR 122.44(f).

IV. GENERAL REQUIREMENTS

A. Planned Changes. The permittee shall give notice to the Department as soon as possible of any planned physical alterations or additions to the permitted facility. Notice is required only when the alteration or addition could significantly change the nature or increase the quantity of pollutant discharged. This notification applies to pollutants which are not subject to effluent limitations in the permit.

B. Anticipated Noncompliance. The permittee shall give advance notice to the Department of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements.

C. Permit Actions. This permit may be modified, revoked and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance, does not stay any permit condition.

D. Duty to Reapply. If the permittee wishes to continue an activity regulated by this permit after the expiration date of this permit, the permittee must apply for and obtain a new permit. The application must be submitted at least 180 days before the expiration date of this permit.

E. Duty to Provide Information. The permittee shall furnish to the Department, within a reasonable time, any information which the Department may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The permittee shall also furnish to the Department, upon request, copies of records required to be kept by this permit.

F. Other Information. When the permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or any report to the Department, it shall promptly submit such facts or information with a narrative explanation of the circumstances of the omission or incorrect submittal and why they weren't supplied earlier.

G. Signatory Requirements. All applications, reports or information submitted to the Department or the EPA shall be signed and certified.

1. All permit applications shall be signed as follows:

    a. For a corporation: by a responsible corporate officer:

    b. For a partnership or sole proprietorship: by a general partner or the proprietor, respectively;

    c. For a municipality, State, Federal, or other public agency: by either a principal executive officer or ranking elected official.

2. All reports required by the permit and other information requested by the Department shall be signed by a person described above or by a duly authorized representative of that person. A person is considered a duly authorized representative only if:

   a. The authorization is made in writing by a person described above and submitted to the Department; and

   b. The authorization specified either an individual or a position having responsibility for the overall operation of the regulated facility or activity, such as the position of plant manager, operator of a well or a well field, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the company. (A duly authorized representative may thus be either a named individual or an individual occupying a named position.)

3. Changes to authorization. If an authorization under Part IV.G.2 of this permit is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements of Part IV.G.2 of this permit must be submitted to the Department prior to or together with any reports, information, or applications to be signed by an authorized representative.

4. Certification. Any person signing a document under this section shall make the following certification:

   "I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

H. Penalties for Falsification of Reports. The Montana Water Quality Act provides that any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this permit, including monitoring reports or reports of compliance or noncompliance shall, upon conviction be punished by a fine of not more that $25,000 per violation, or by imprisonment for not more than six months per violation, or by both.

I. Availability of Reports. Except for data determined to be confidential under 40 CFR Part 2, all reports prepared in accordance with the terms of this permit shall be available for public inspection at the offices of the Department. As required by the Clean Water Act, permit applications, permits and effluent data shall not be considered confidential.

J. Oil and Hazardous Substance Liability. Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties to which the permittee is or may be subject under Section 311 of the Clean Water Act.

K. Property or Water Rights. The issuance of this permit does not convey any property or water rights of any sort, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of federal, state or local laws or regulations.

L. Severability. The provisions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby.

M. Transfers. This permit may be automatically transferred to a new permittee if:

1. The current permittee notifies the Department at least 30 days in advance of the proposed transfer date;

2. The notice includes a written agreement between the existing and new permittees containing a specific date for transfer of permit responsibility, coverage, and liability between them;

3. The Department does not notify the existing permittee and the proposed new permittee of an intent to revoke or modify and reissue the permit. If this notice is not received, the transfer is effective on the date specified in the agreement mentioned in Part IV.M.2 of this permit; and

4. Required annual and application fees have been paid.

N. Fees. The permittee is required to submit payment of an annual fee as set forth in ARM 17.30.201. If the permittee fails to pay the annual fee within 90 days after the due date for the payment, the Department may:

1. Impose an additional assessment consisting of 15% of the fee plus interest on the required fee computed at the rate established under 15-31-510(3), MCA, or

2. Suspend the processing of the application for a permit or authorization or, if the nonpayment involves an annual permit fee, suspend the permit, certificate or authorization for which the fee is required. The Department may lift suspension at any time up to one year after the suspension occurs if the holder has paid all outstanding fees, including all penalties, assessments and interest imposed under this sub-section. Suspensions are limited to one year, after which the permit will be terminated.

O. Reopener Provisions. This permit may be reopened and modified (following proper administrative procedures) to include the appropriate effluent limitations (and compliance

schedule, if necessary), or other appropriate requirements if one or more of the following events occurs:

1. Water Quality Standards: The water quality standards of the receiving water(s) to which the permittee discharges are modified in such a manner as to require different effluent limits than contained in this permit.

2. Water Quality Standards are Exceeded: If it is found that water quality standards or trigger values in the receiving stream are exceeded either for parameters included in the permit or others, the department may modify the effluent limits or water management plan.

3. TMDL or Wasteload Allocation: TMDL requirements or a wasteload allocation is developed and approved by the Department and/or EPA for incorporation in this permit.

4. Water Quality Management Plan: A revision to the current water quality management plan is approved and adopted which calls for different effluent limitations than contained in this permit.

5. Toxic Pollutants: A toxic standard or prohibition is established under Section 307(a) of the Clean Water Act for a toxic pollutant which is present in the discharge and such standard or prohibition is more stringent than any limitation for such pollutant in this permit.

6. Toxicity Limitation.. Change in the whole effluent protocol, or any other conditions related to the control of toxicants have taken place, or if one or more of the following events have occurred:

    a. Toxicity was detected late in the life of the permit near or past the deadline for compliance.

    b. The TRE/TIE results indicated that compliance with the toxic limits will require an implementation schedule past the date for compliance and the permit issuing authority agrees with the conclusion.

    c. The TRE/TIE results indicated that the toxicant(s) represent pollutant(s) that may be controlled with specific numerical limits, and the permit issuing authority agrees that numerical controls are the most appropriate course of action.

    d. Following the implementation of numerical controls on toxicants, the permit issuing authority agreed that a modified whole effluent protocol is needed to compensate for those toxicants that are controlled numerically.

    e. The TRE/TIE revealed other unique conditions or characteristics which, in the opinion of the permit issuing authority, justify the incorporation of unanticipated special conditions in the permit.